

REMARKS

In the last Office Action, the Examiner rejected claims 5, 6, 14, 15, 17, 19 and 20 under 35 U.S.C. §112, second paragraph, for indefiniteness. Claims 1, 3, 7, 10, 12 and 16 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,055,259 to Sibrava. Claims 5, 9 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,564,889 to Araki in view of U.S. Patent No. 4,699,555 to Guarino. Claims 4, 8 and 13 were objected to as being dependent upon a rejected base claim, but indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 6, 14, 15, 17, 19 and 20 were indicated to be allowable if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph, and to include all of the limitations of the base claim and any intervening claims. Additional art was cited of interest.

Applicants and applicants' counsel note with appreciation the indication of allowable subject matter concerning claims 4, 6, 8, 13-15, 17, 19 and 20. However, for the reasons noted below, applicants respectfully submit that amended claims 1-3, 7, 9-12, 16, 18 and newly added claims 21-30 also patentably distinguish from the prior art of record.

In accordance with the present response, the specification has been suitably revised to correct informalities, provide antecedent basis for the claim language, and bring it into better conformance with U.S. practice. Original independent claims 1 and 10 have been amended to incorporate the subject matter of allowable claims 4 and 13, respectively, which have been canceled. Allowable claims 6, 8, 14 and 17 have been rewritten in independent form to incorporate the subject matter of the corresponding base and intervening claims. Claims 1-3, 6-12 and 14-20 have also been amended in formal respects to improve the wording and bring them into better conformance with U.S. practice. Claim 5 has been canceled. To provide a fuller scope of coverage, new claims 21-30 have been added. A new abstract which more clearly reflects the invention to which the amended and new claims are directed has been substituted for the original abstract.

In view of the foregoing, applicants respectfully submit that the rejection of claims 6, 14, 15, 17, 19 and 20 under 35 U.S.C. §112, second paragraph, has been overcome and should be withdrawn.

Applicants respectfully submit that amended claims 1-3, 7, 9-12, 16, 18 and newly added claims 21-30 patentably distinguish from the prior art of record.

Amended independent claim 1 is directed to a vacuum apparatus. With reference to the embodiment shown in Figs. 1-7, the vacuum apparatus has a process chamber 1 for processing a workpiece W, a transfer chamber 2 connected to the process chamber 1 via a gate valve 3, and a transfer apparatus 4 disposed in the transfer chamber 2 for transferring the workpiece W into the process chamber 1. The transfer apparatus 4 has a pair of generally parallel and spaced-apart tapes 10 each having a tip end portion. A workpiece holder 11 is connected to the tip end portion of each of the tapes 10 for supporting the workpiece W. The tapes 10 are configured to undergo movement from a retracted position to an extended position in which the tapes 10 are extended in a longitudinal direction thereof via the gate valve 3 to position the workpiece holder 11 and the workpiece W in the process chamber 1. A feeding mechanism 12 feeds the tapes in the longitudinal direction to the extended position to position the workpiece holder 11 and the workpiece W in the process chamber 1.

Thus amended independent claim 1 recites the allowable subject matter of claim 4, now canceled. More specifically, amended independent claim 1 requires a transfer apparatus having a pair of generally parallel and spaced-apart tapes each having a tip end portion, and a workpiece holder connected to the tip end portion of each of the tapes for

supporting the workpiece. As recognized by the Examiner, no corresponding structure is disclosed or suggested by the prior art of record. For example, in Sibrava, the sample transport apparatus has a single tape 32 for moving a transport member 10 (workpiece holder) into a furnace portion (process chamber) 18. In contrast, amended claim 1 requires a pair of generally parallel and spaced-apart tapes and a workpiece holder connected to the tip end portion of each of the tapes. Stated otherwise, while Sibrava discloses a single tape connected to the workpiece holder, amended claim 1 requires a pair of tapes each connected to the workpiece holder.

Amended independent claim 10 also recites a pair of generally parallel and spaced-apart tapes each having a tip end portion connected to the workpiece holder and, therefore, distinguishes from Sibrava in the same manner as amended independent claim 1.

Allowable claims 6, 8, 14 and 17 have been rewritten in independent form to incorporate the subject matter of the corresponding base and intervening claims and, therefore, are also allowable over the prior art of record.

New independent claim 23 is directed to a vacuum apparatus and requires a process chamber for processing a workpiece and a transfer apparatus for positioning the workpiece in the process chamber and for removing the workpiece from the process chamber. Claim 23 further requires

that the transfer apparatus has a pair of generally parallel and spaced-apart transfer bodies and a workpiece holder connected to the transfer bodies for supporting the workpiece. Claim 23 further requires a feeding mechanism for feeding the transfer bodies in a longitudinal direction thereof to position the workpiece holder and the workpiece in the process chamber. No corresponding structural combination is disclosed or suggested by the prior art of record as set forth above for amended independent claim 1. For example, Sibrava discloses only a single transfer body (e.g., tape), while independent claim 23 requires a pair of transfer bodies.

New claims 24-30 depend on and contain all of the limitations of independent claim 23 and, therefore, distinguish from the references at least in the same manner as claim 23.

Moreover, there are separate grounds for patentability of several of new claims 24-30.

Claim 27 includes the additional limitation that the transfer bodies are symmetrical about a longitudinal central axis of the workpiece holder. No corresponding structure is disclosed or suggested by the prior art of record.

Claims 28 and 29 are directed to the specific structure of the transfer apparatus and the workpiece holder, respectively. Again, no corresponding structure is disclosed or suggested by the prior art of record.

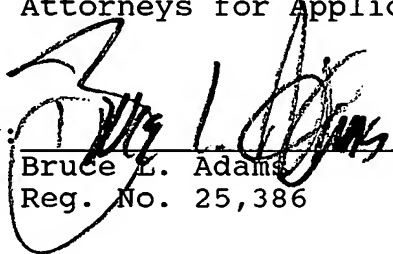


In view the foregoing amendments and discussion, the application is believed to be in allowable form. Accordingly, favorable reconsideration and allowance of the claims are most respectfully requested.

Respectfully submitted,

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March 9, 2004

Date